

The Art and Science of Depiction

*Limitations of the Medium,
compensation or accentuation:
The Image is Static*

Fredo Durand

MIT- Lab for Computer Science

Icons

- Role of pictures/artists
- Iconoclasts



Limitations: static

Icons: canon

- Millet-Van Gogh



Limitations: static

Icons: canon

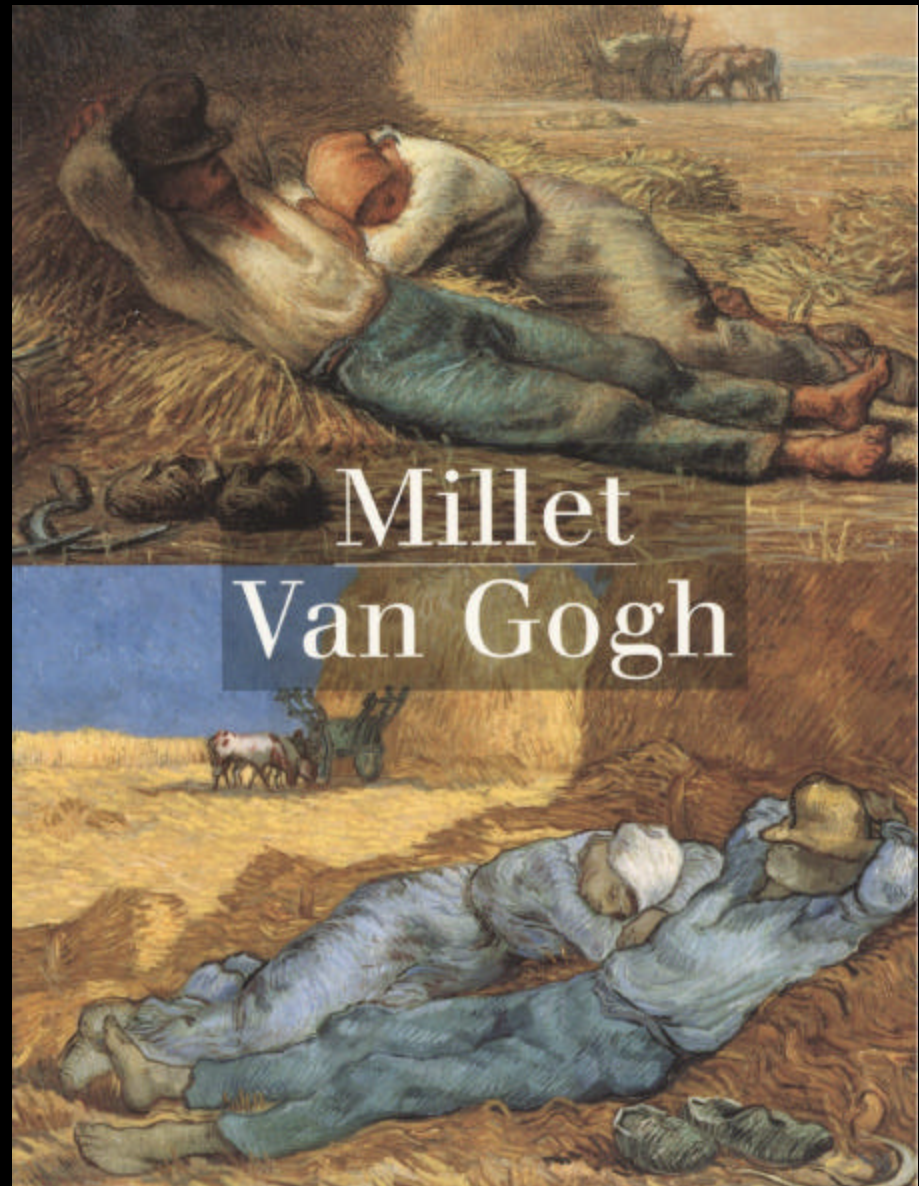
- Millet-Van Gogh



Limitations: static

Icons: canon

- Millet-Van Gogh



Limitations: static

Icons: canon

- Hokusai – Jeff Wall



Limitations: static

Icon: canon

- Scorsese
- La femme Nikita/Point of No Return
- White House

Movie anyone?

- A Personal Journey through American Cinema with Martin Scorsese
- Le Mystère Picasso
- Making of Toy Story

Talk

- Who will talk after Spring Break?

Assignments

- Readings
 - Different choices
 - Summarize to others the next week
(send me the summary)
 - Prepare questions for the text you have not read
- Solso *Cognition and the Visual Arts*
- Essay
 - Exploratory or Picture comment

Personal Meeting II

- Class
- Essay
- Project

Plan

- The picture is flat
- The viewpoint is unique
- The image is finite, it has a frame
- The picture is static
- The contrast is limited
- The gamut (palette) is limited

The picture is static

- Single snapshot
 - Content
 - Time & Pose (not at rest)
 - Viewpoint
 - Blur, Action lines, path
- Multiple snapshot
- Metaphor
- Pictorial
- Op' Art

Content



Limitations: static

Content

- *Constable, View on Stour*



Limitations: static

Content

- George de la Tour
Penitent



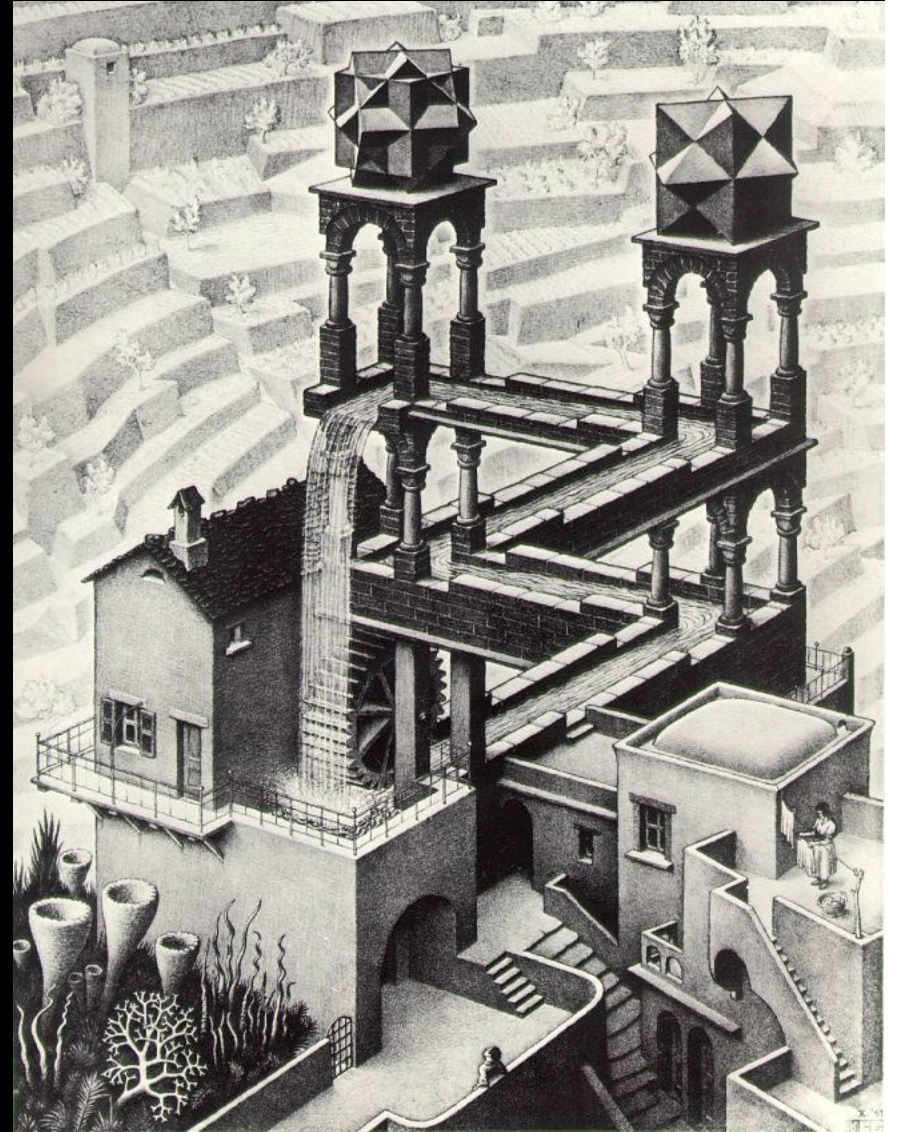
Content



Limitations: static

Content

- M.C. Escher, *Waterfall*



Limitations: static

The picture is static

- Single snapshot
 - Content
 - Time & Pose (not at rest)
 - Viewpoint
 - Blur, Action lines, path
- Multiple snapshot
- Metaphor
- Pictorial
- Op' Art

Pose



Limitations: static

Deviation from the resting position

- Andrew Wyeth, *Wind from the Sea*, 1968



Limitations: static

Pose

- Guericault



Limitations: static

Pose accentuated

- Lartigues (effect of curtain shutter)



Limitations: static

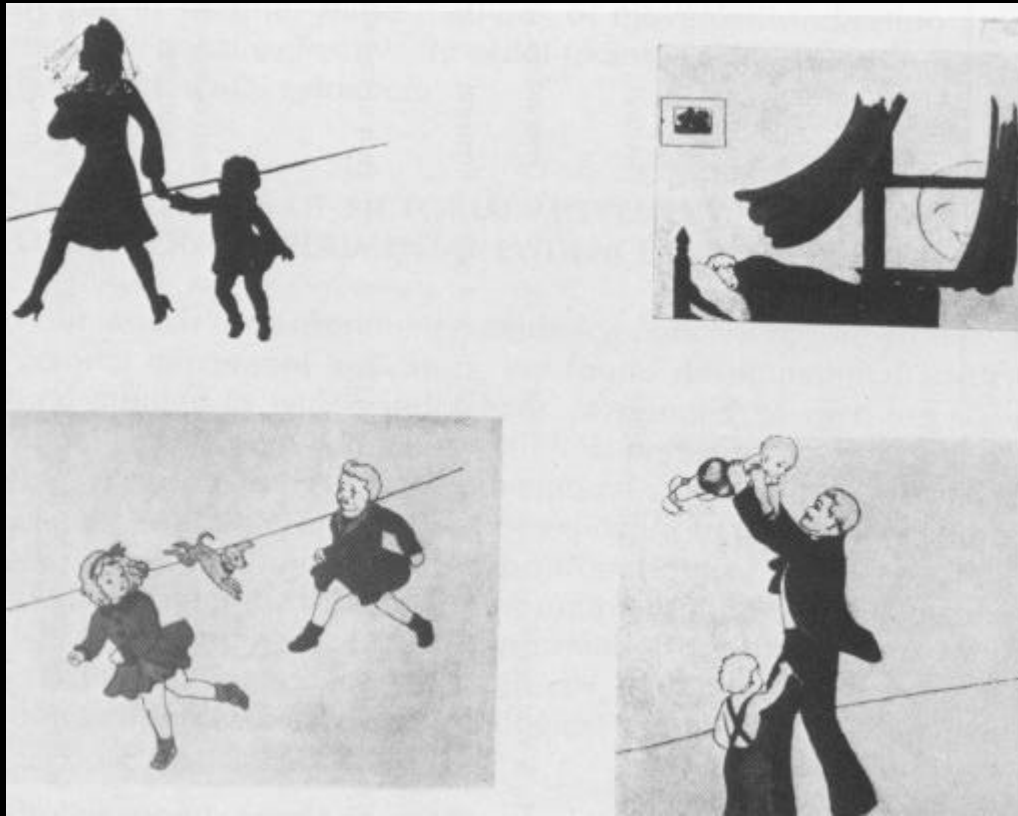
Egyptian vs. Greek



Limitations: static

Pose Effectiveness

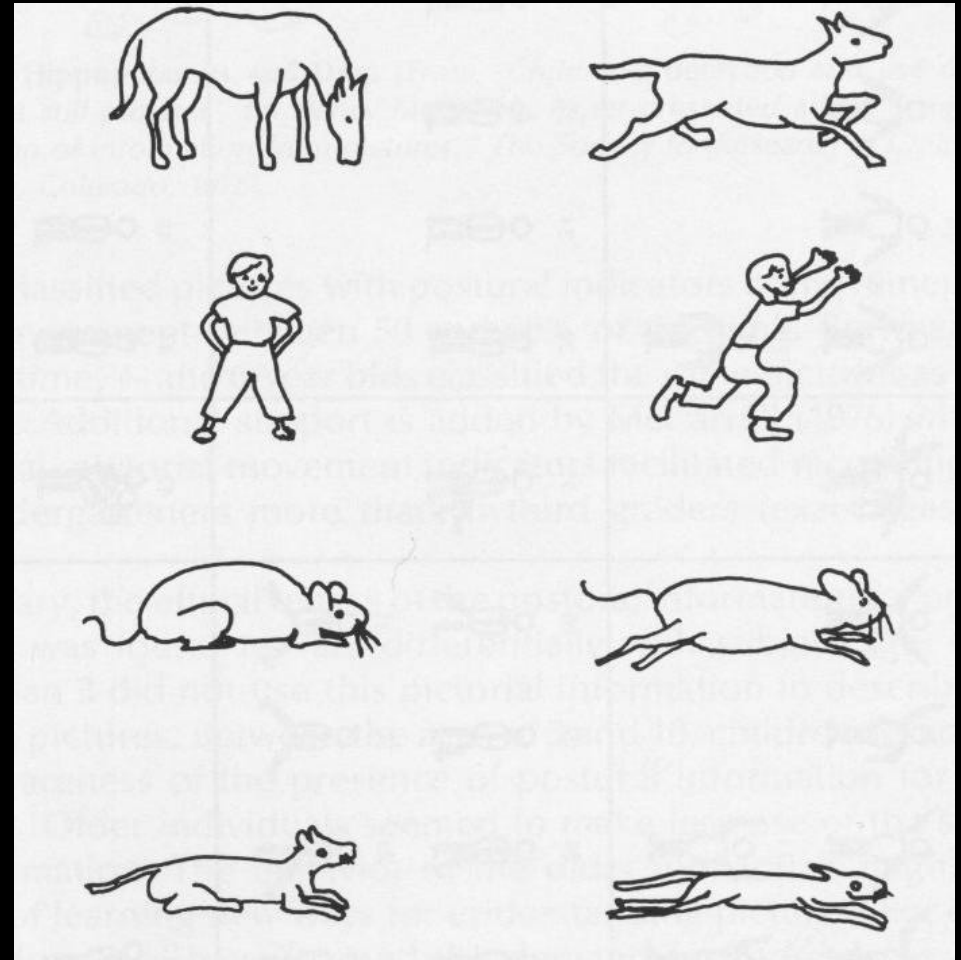
- Effective for 3 year old, no for 2 year old
[Amen 1941]



Limitations: static

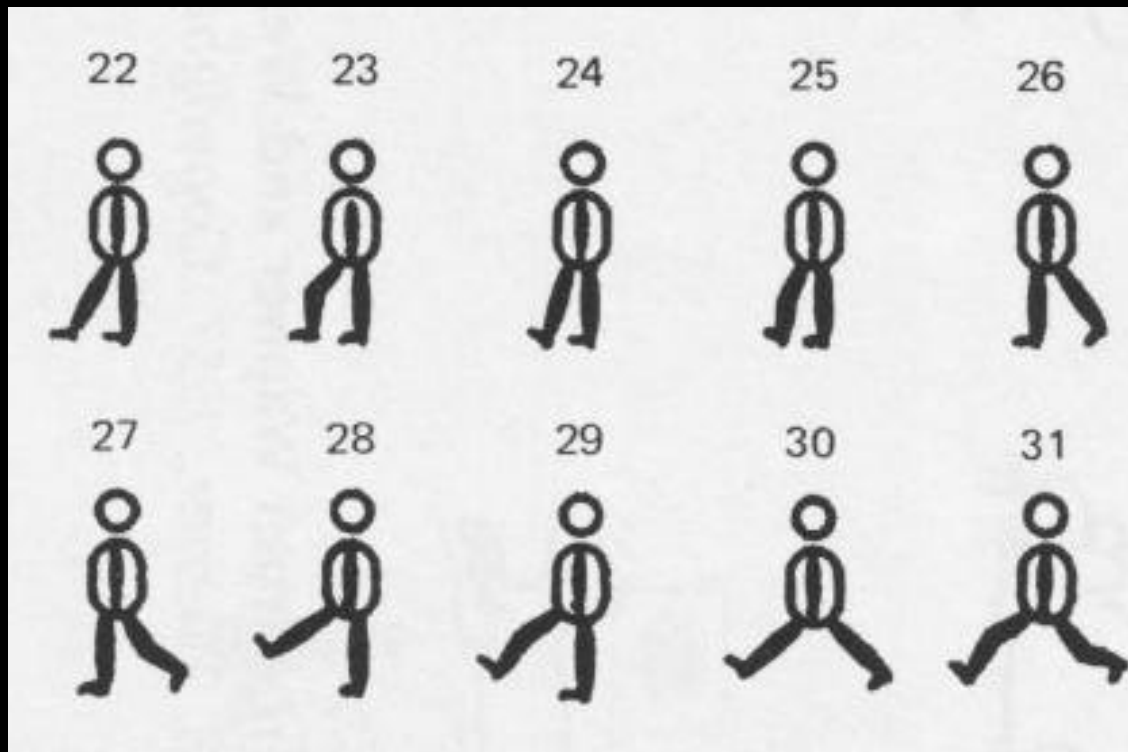
Pose Effectiveness

- Effective for 3 year old, no for 2 year old
- Then decline with age



Pose Effectiveness

- Effective for 3 year old, no for 2 year old
- Then decline with age
- The more dramatic, the better



Limitations: static

Pose Effectiveness

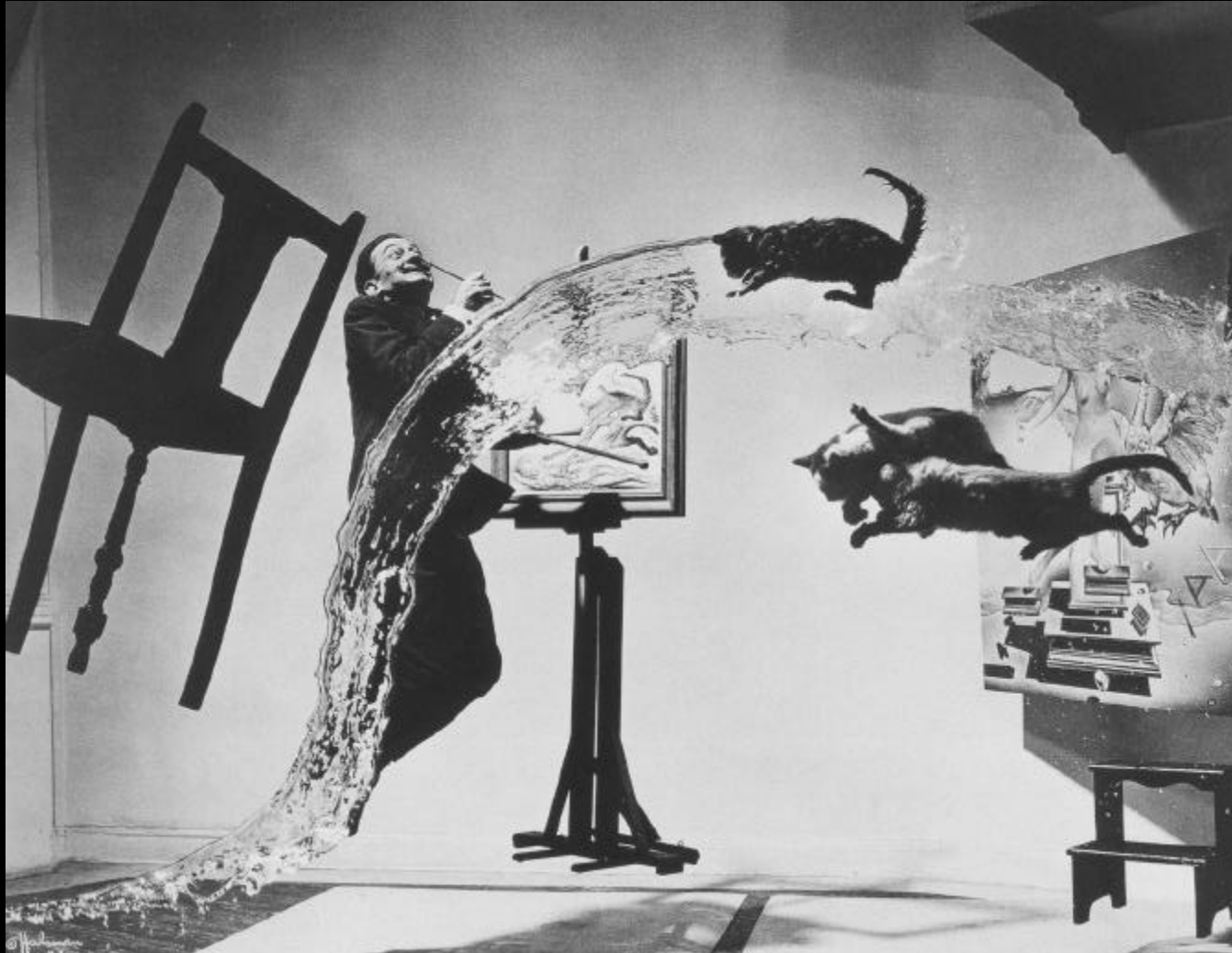
- The more dramatic,
the better



Limitations: static

Pose Effectiveness

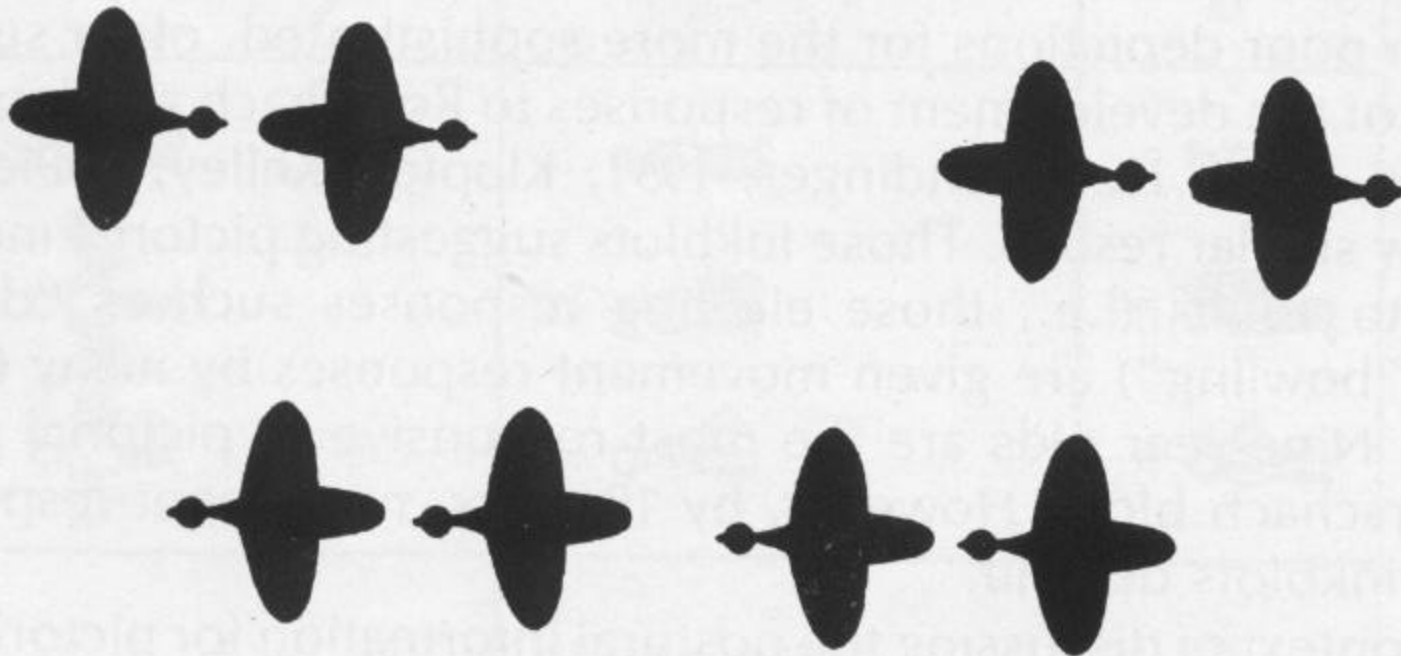
- Philippe Halsman, *Dali Anatomicus*, 1977



Limitations: static

Orientation

- Left to right in Western culture
- Chinese calligraphy...



The picture is static

- Single snapshot
 - Content
 - Time & Pose (not at rest)
 - Viewpoint
 - Blur, Action lines, path
- Multiple snapshot
- Metaphor
- Pictorial
- Op' Art

Viewpoint

- + lines +pose



Viewpoint

- +pose



Limitations: static

The picture is static

- Single snapshot
 - Content
 - Time & Pose (not at rest)
 - Viewpoint
 - **Blur, Action lines, path**
- Multiple snapshot
- Metaphor
- Pictorial
- Op' Art

Path of Movement – Motion Blur



Limitations: static

Path of Movement



Trails



Limitations: static

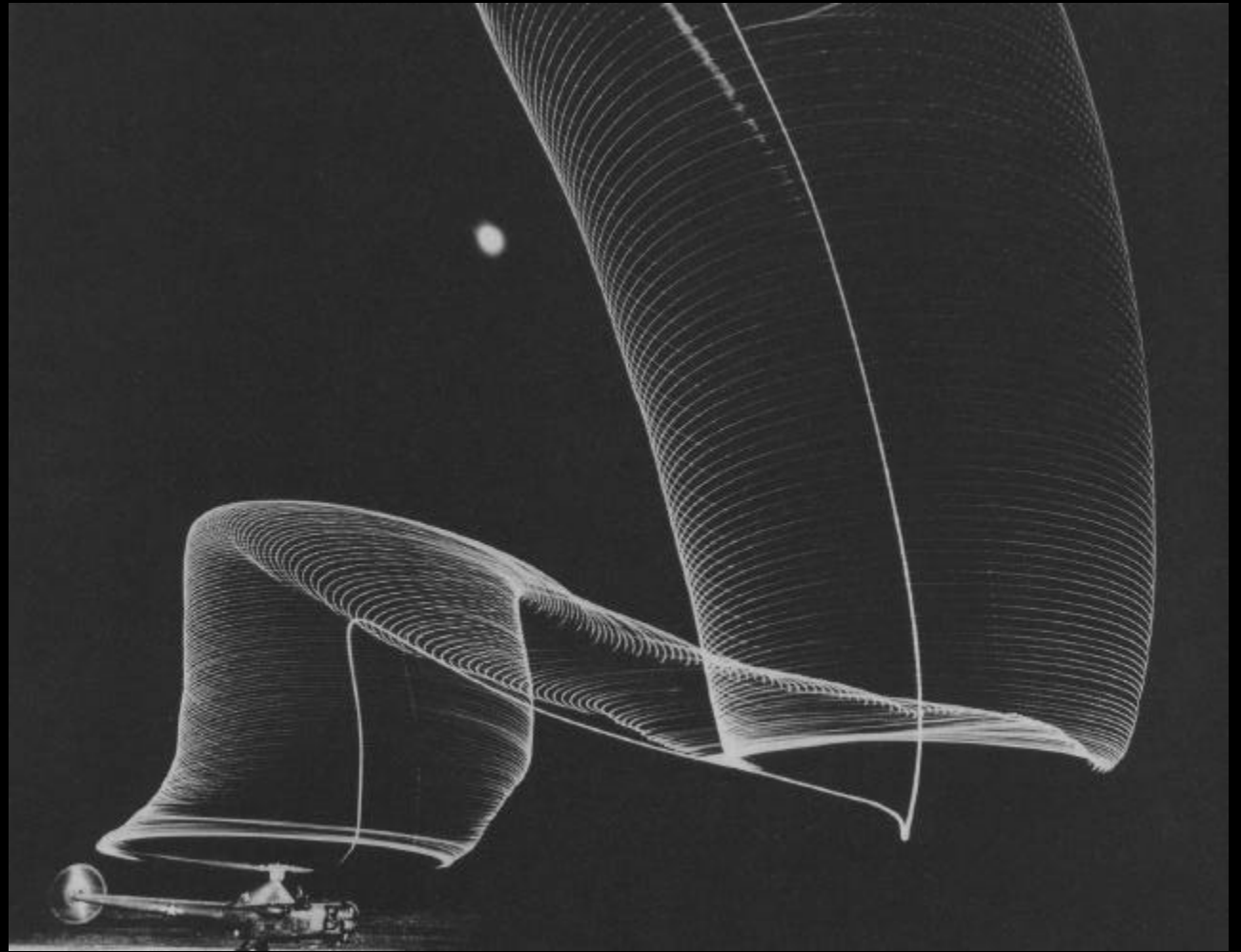
Trails



Limitations: static

Trails

- Feininger, *US Navy Helicopter Taking Off At Night, 1949*



Motion Blur

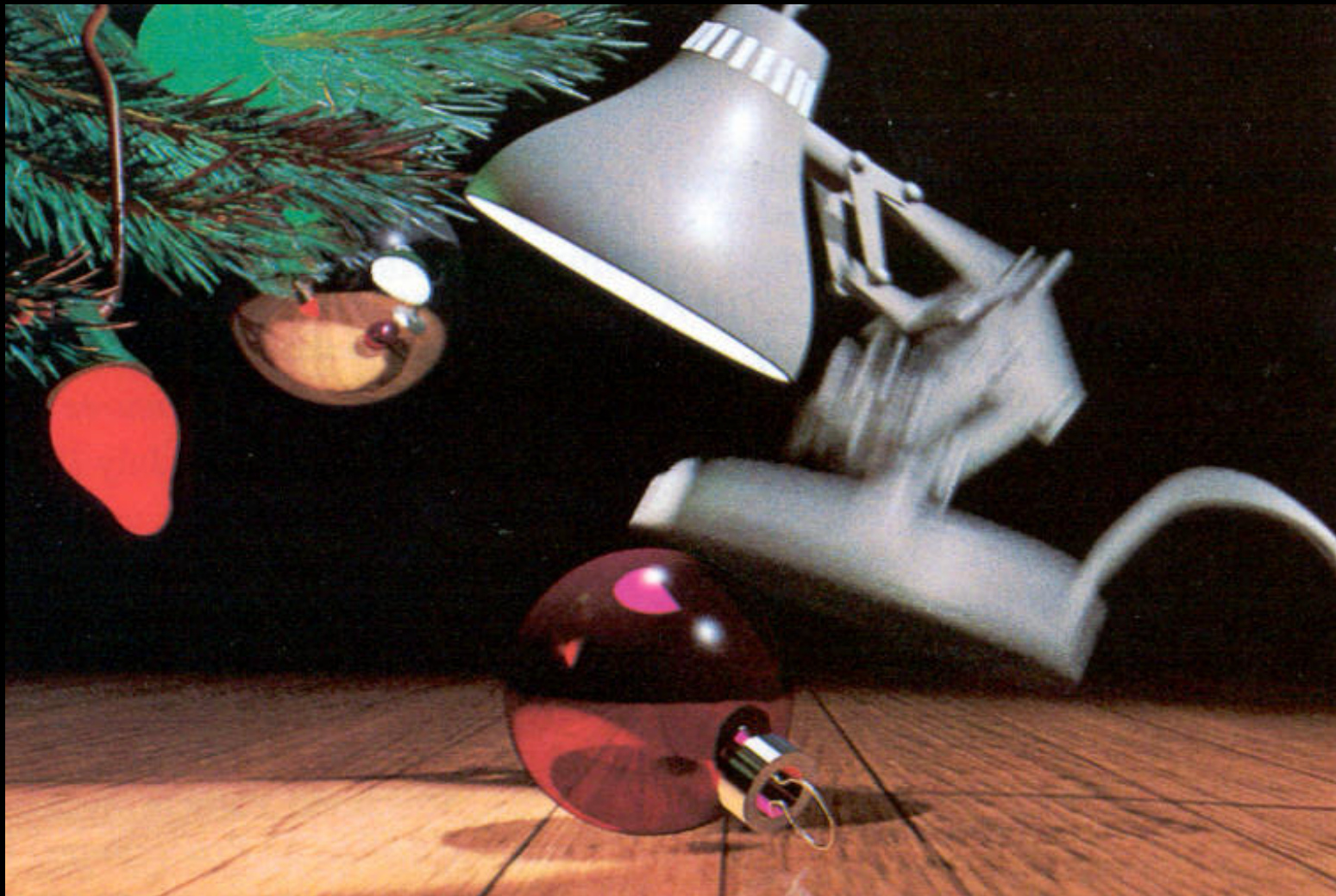
- Star Wars, Lucas Film



Limitations: static

Motion Blur

- Luxo Jr., Pixar



Limitations: static

Motion Blur

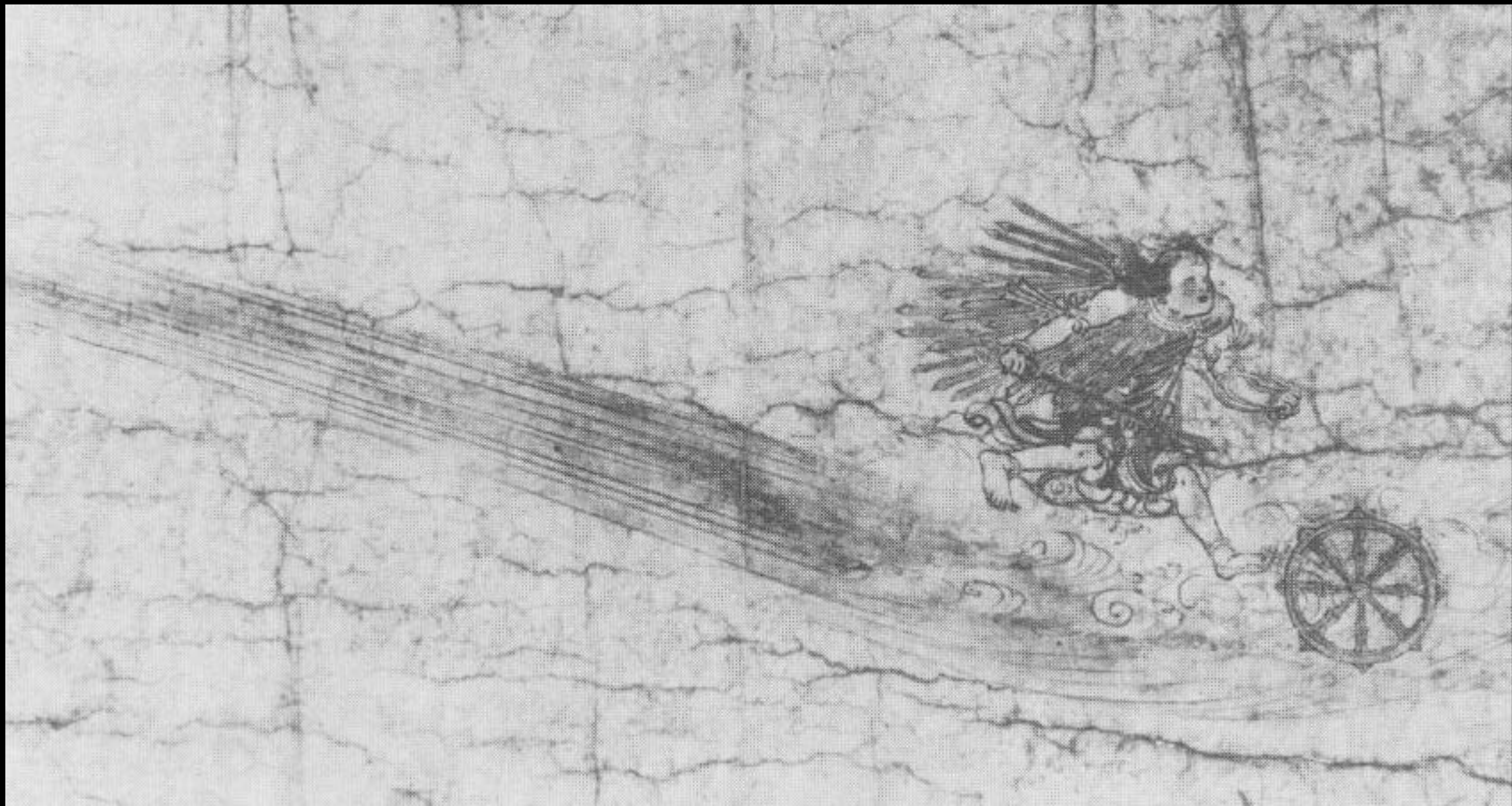
- Velasquez



Limitations: static

Motion Blur, Trail

- *Child Attendant Flying down from Heaven on a Cloud, 1952*

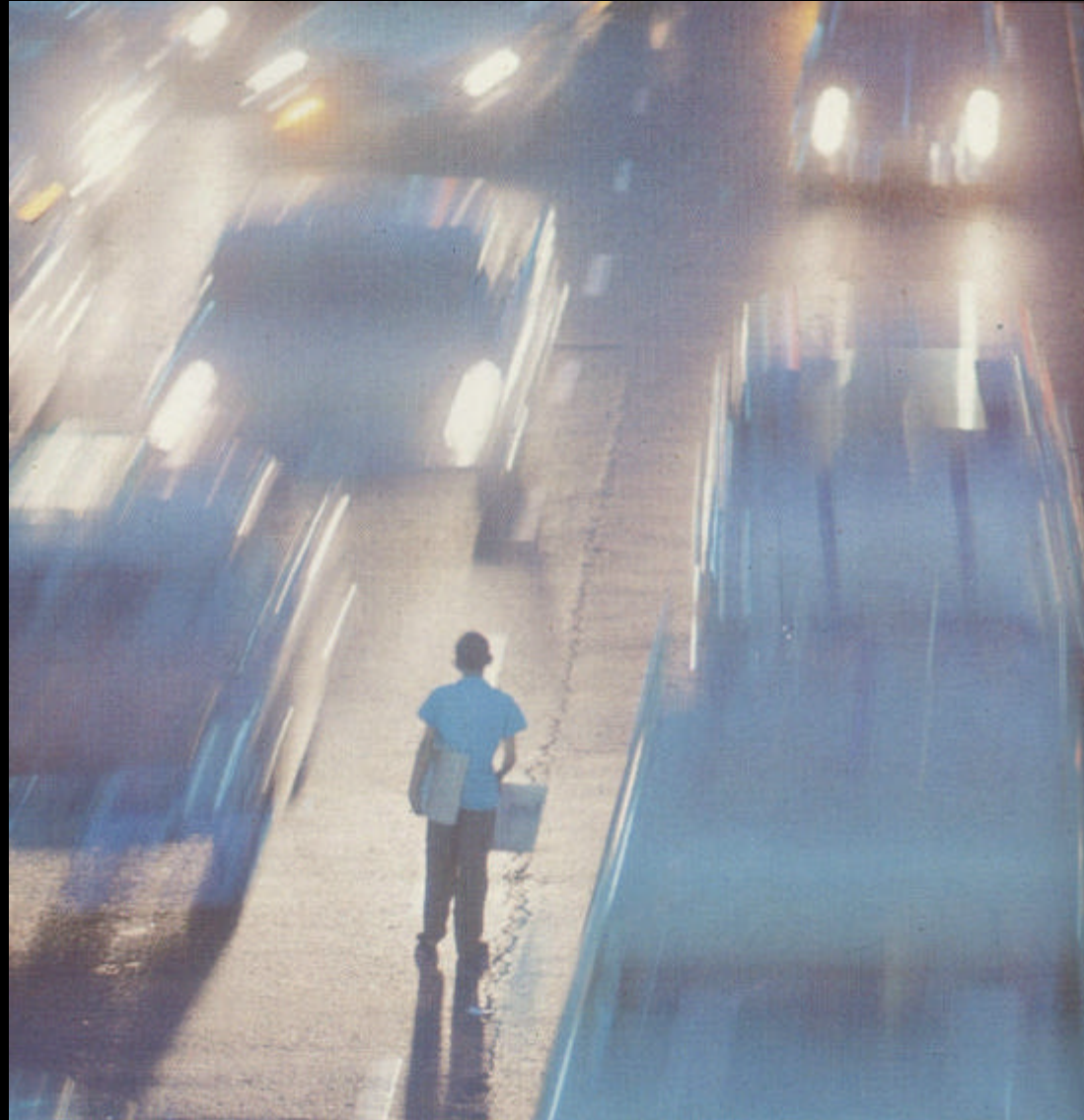


Motion blur – Figure



Limitations: static

Motion Blur – Ground



Limitations: static

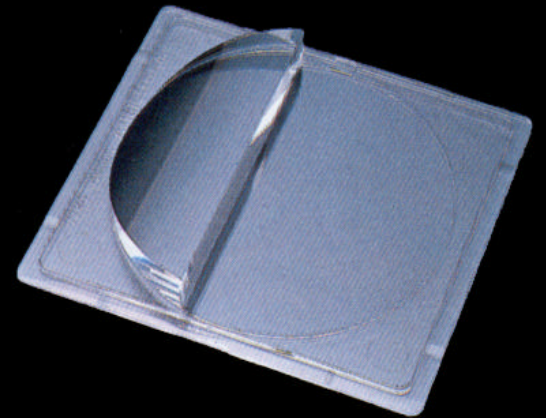
Motion Blur - Both

- +Viewpoint, content



Limitations: static

Motion Blur



Limitations: static

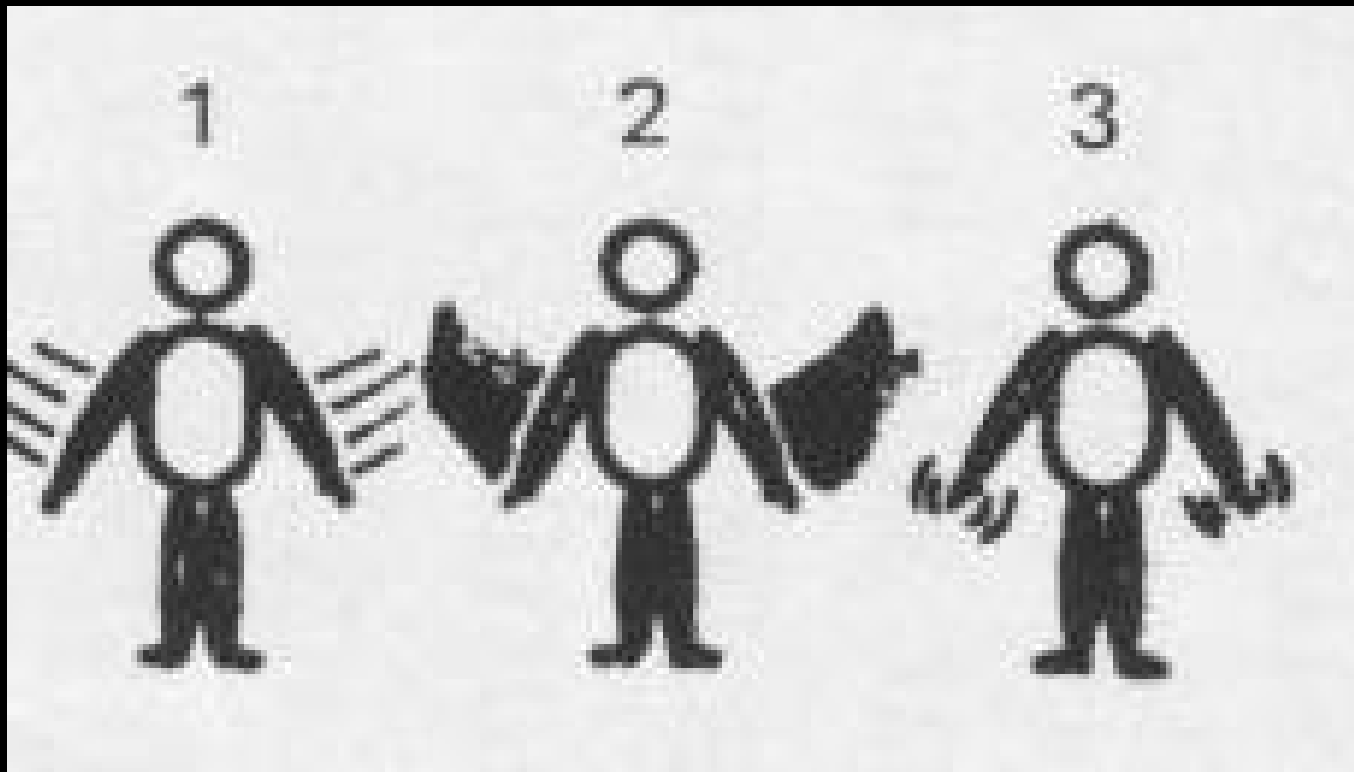
Cartoon – lines of movement

- Keith Haring
Untitled, 1982



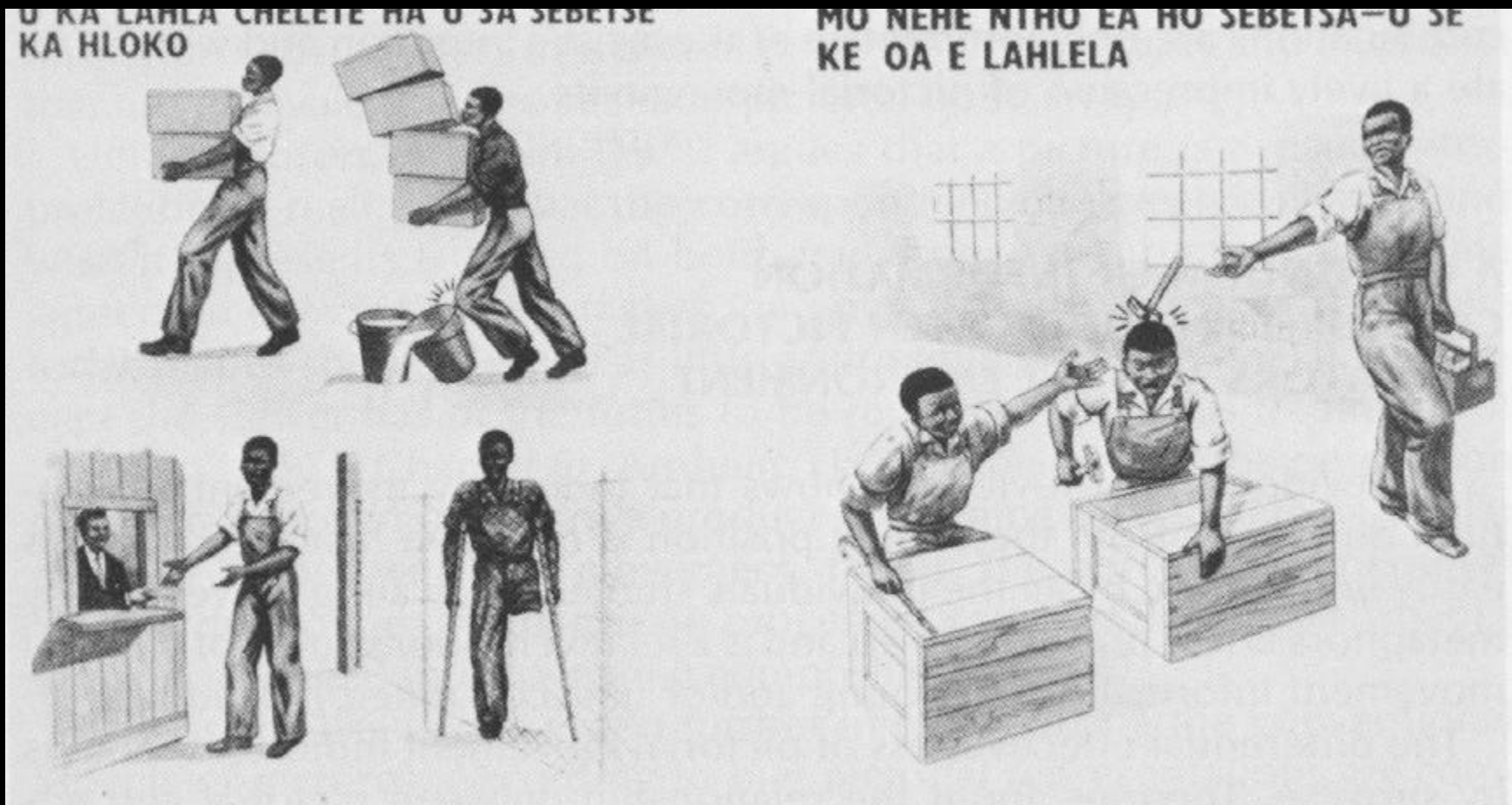
Path of movements

- More effective for older groups (>8 year old)



Path of movements

- More effective for older groups (>8 year old)
- Importance of exposure to pictures



Sculpture

- Umberto Boccioni, *Unique Form of Continuity in Space*, 1913



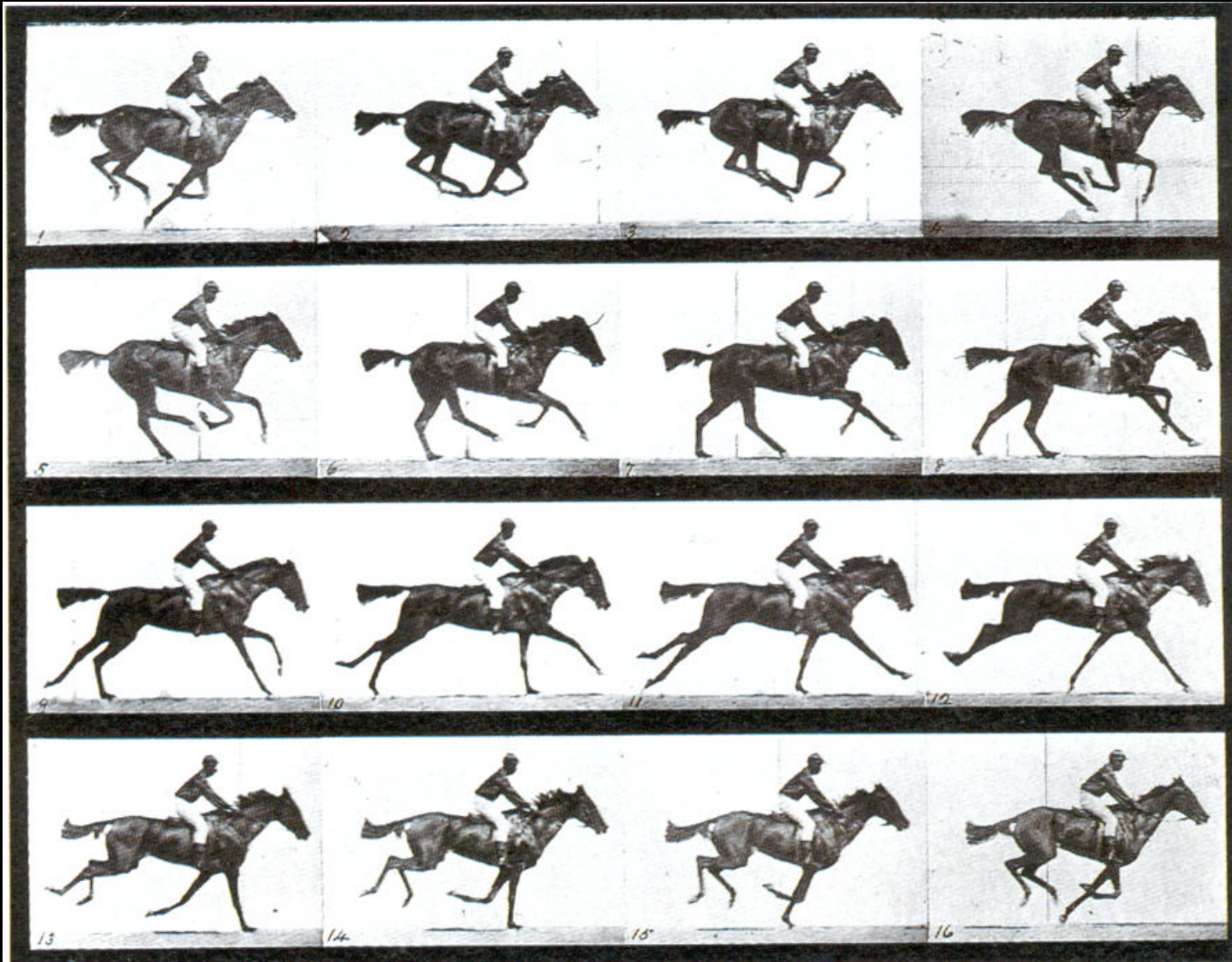
Limitations: static



The picture is static

- Single snapshot
 - Content
 - Time & Pose (not at rest)
 - Viewpoint
 - Blur, Action lines, path
- Multiple snapshot
- Metaphor
- Pictorial
- Op' Art

Multiple snapshots



Limitations: static

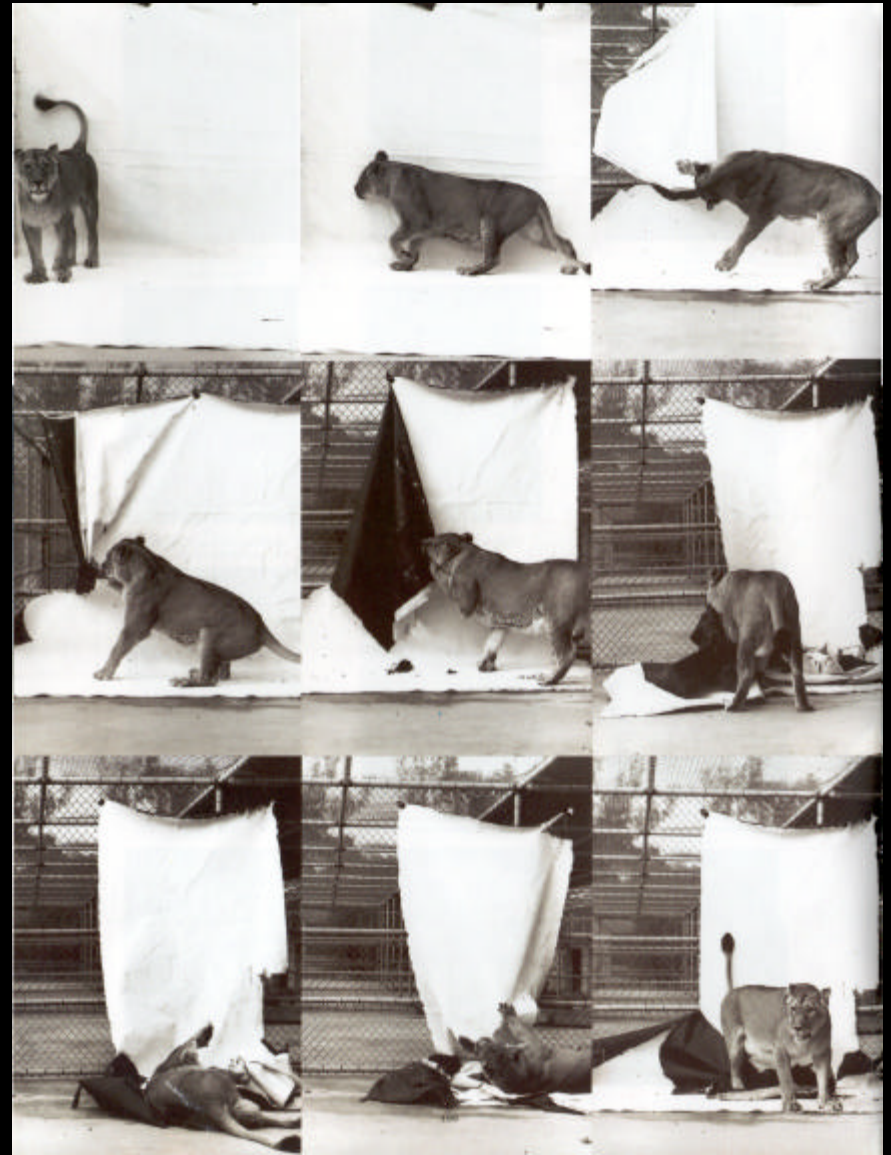
Multiple snapshots



Limitations: static

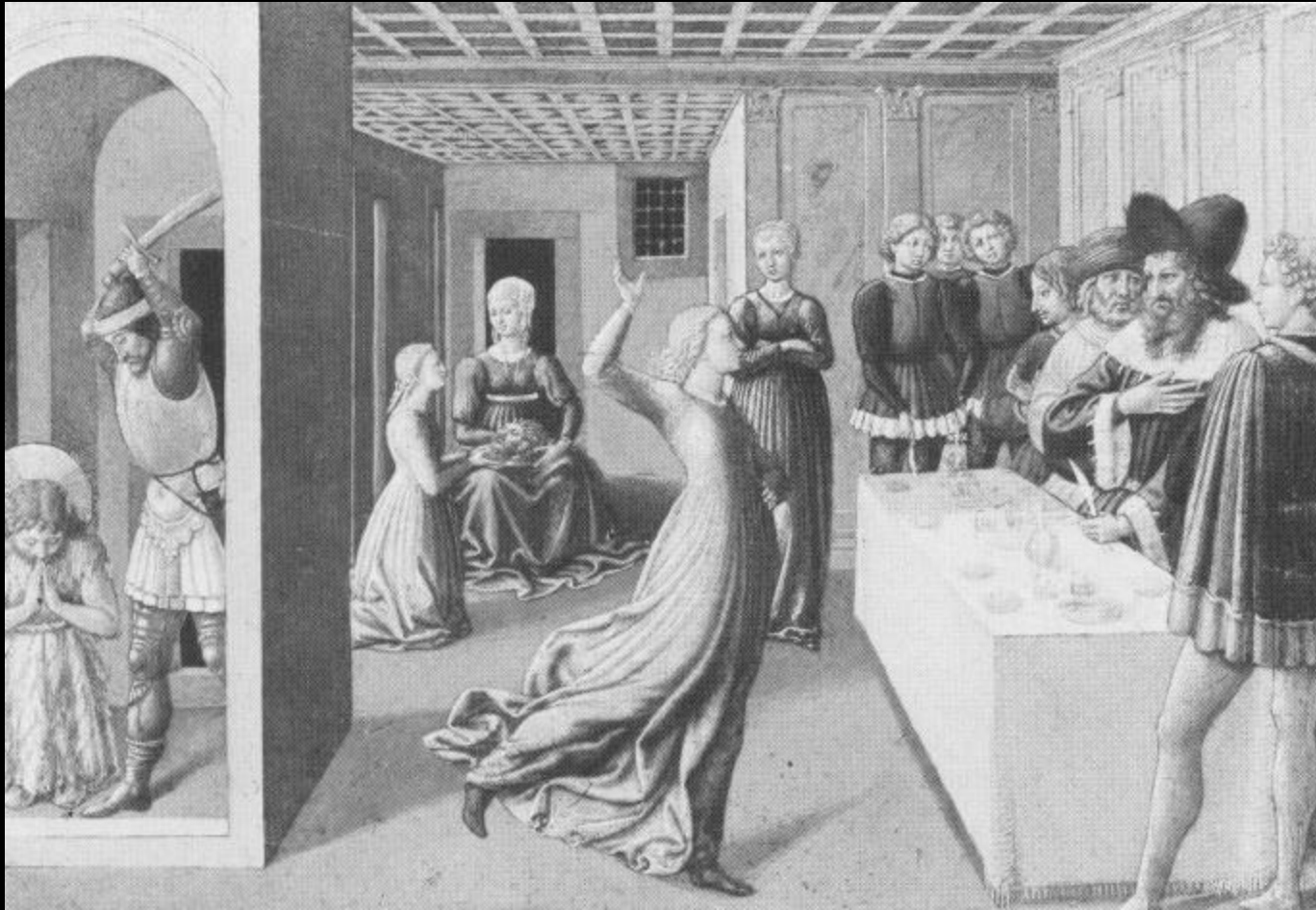
Multiple snapshots – multiple images

- Gary Heery
*Lion, Panthera
Persica X Leo
(Fro Zoo)*



Multiple Snapshots – one image

- *The Dance of Salome, Benozzo Gozzoli*



Limitations: static

Multiple snapshots – superimposed



Limitations: static

Multiple snapshot – multiple gaze

- David Hockney



Multiple snapshot: nature vs. nurture

- Head motion perception:
 - 3% rural Zulu, 86% White South African
- Cultural nurture



Multiple snapshots

- Masaccio and Masolino



Limitations: static

Multiple snapshots

- Sassetta,
*The Meeting of
St Anthony and
Saint Paul,*
1440



Multiple Snapshots

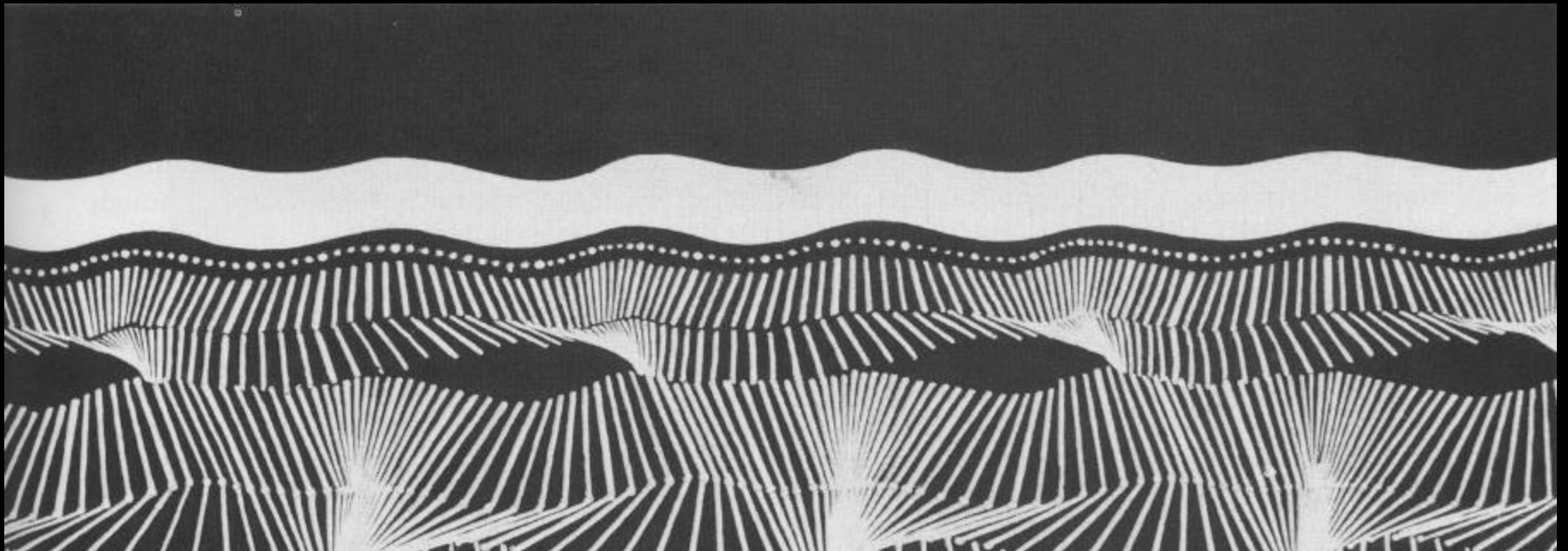
- *Murder at the Pentagon, Tobi Indyke, 1993*



Limitations: static

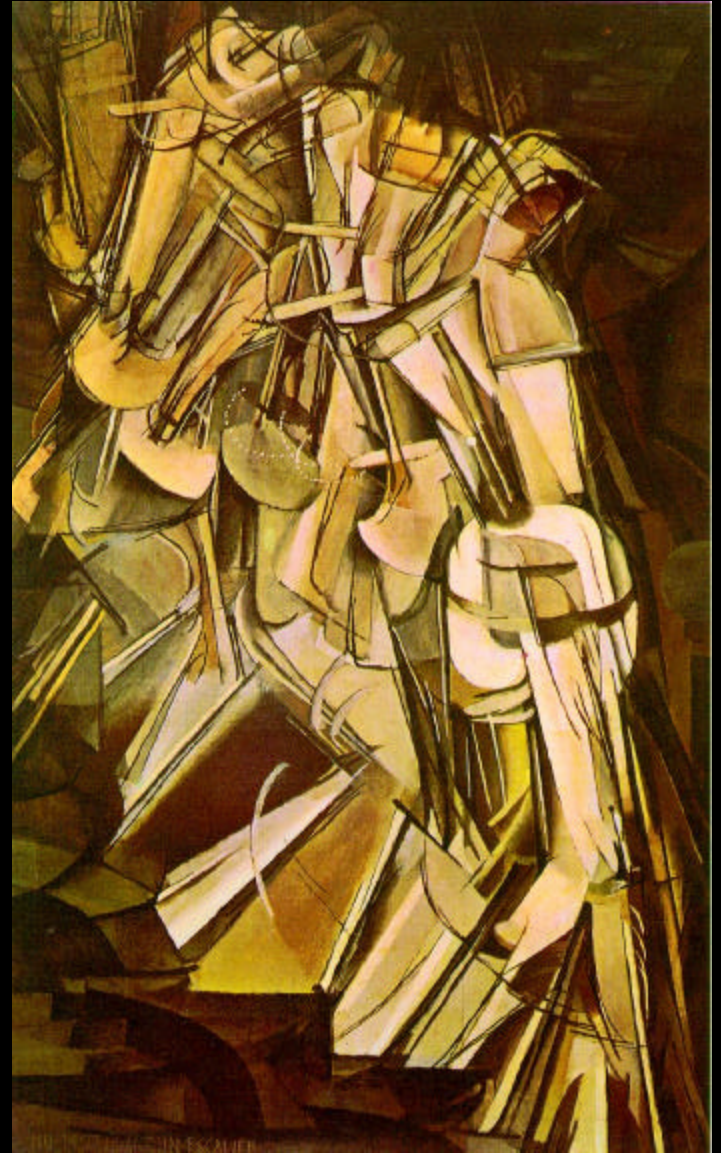
Multiple snapshots

- Etienne-Jules Marey,
Chronophotograph



Multiple Snapshots

- Marcel Duchamp
*Nude Descending
a Staircase*
1912



Limitations: static

Multiple Snapshots

- Giacomo Balla, *Dynamism Of A Dog On A Leash* 1912



Limitations: static

Hockney



Limitations: static

Multiple Snapshots

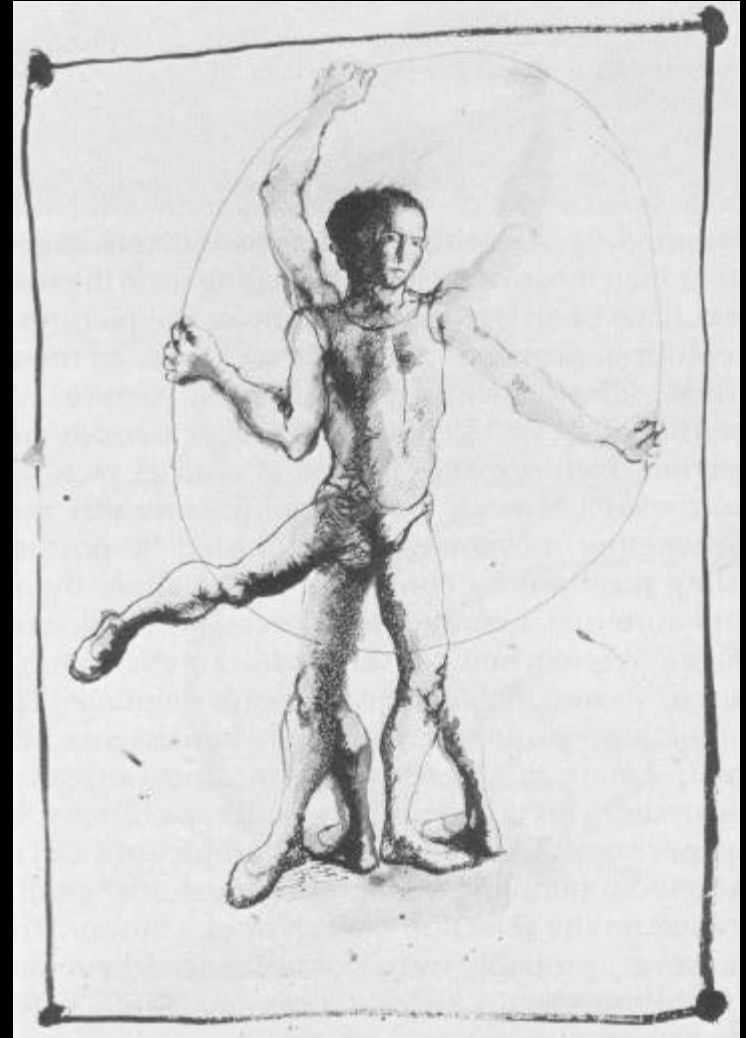
- Magritte, *Le Sorcier*



Limitations: static

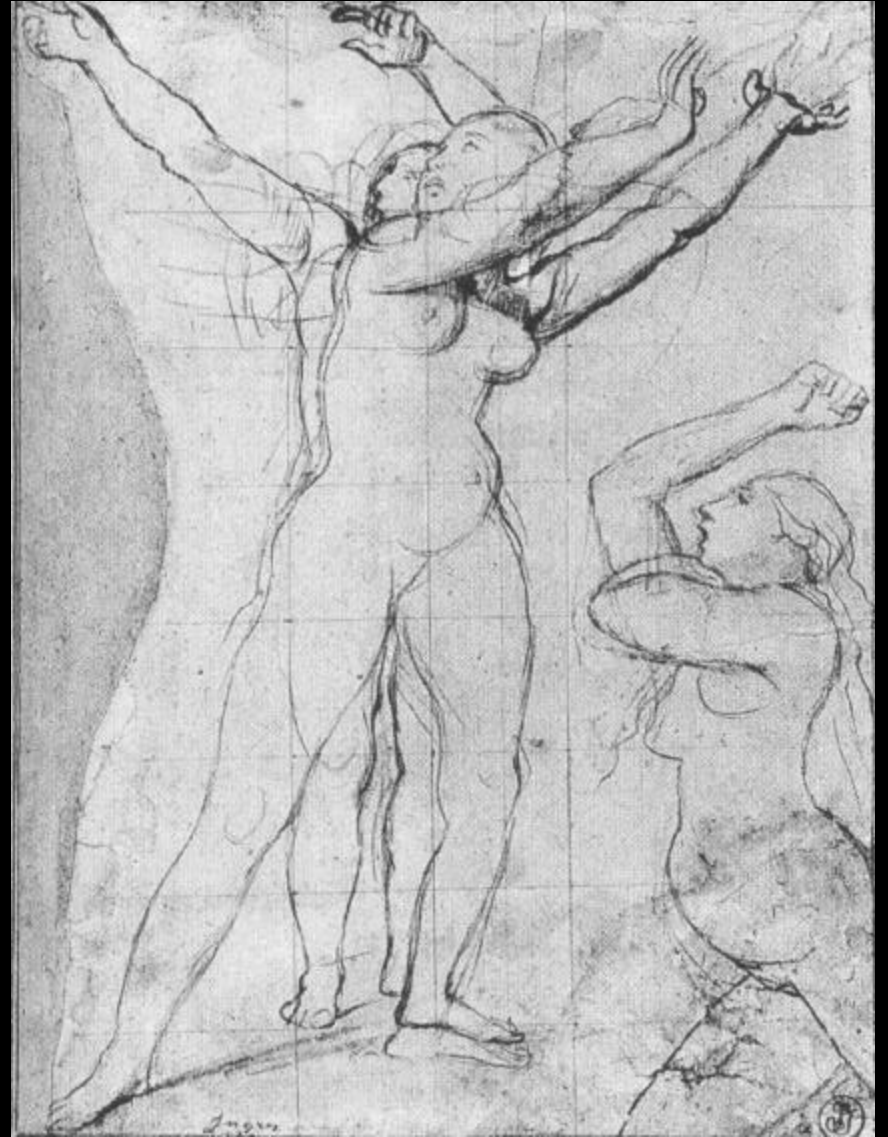
Multiple Snapshots

- *A Dancer,*
Pavel Tchelitchew



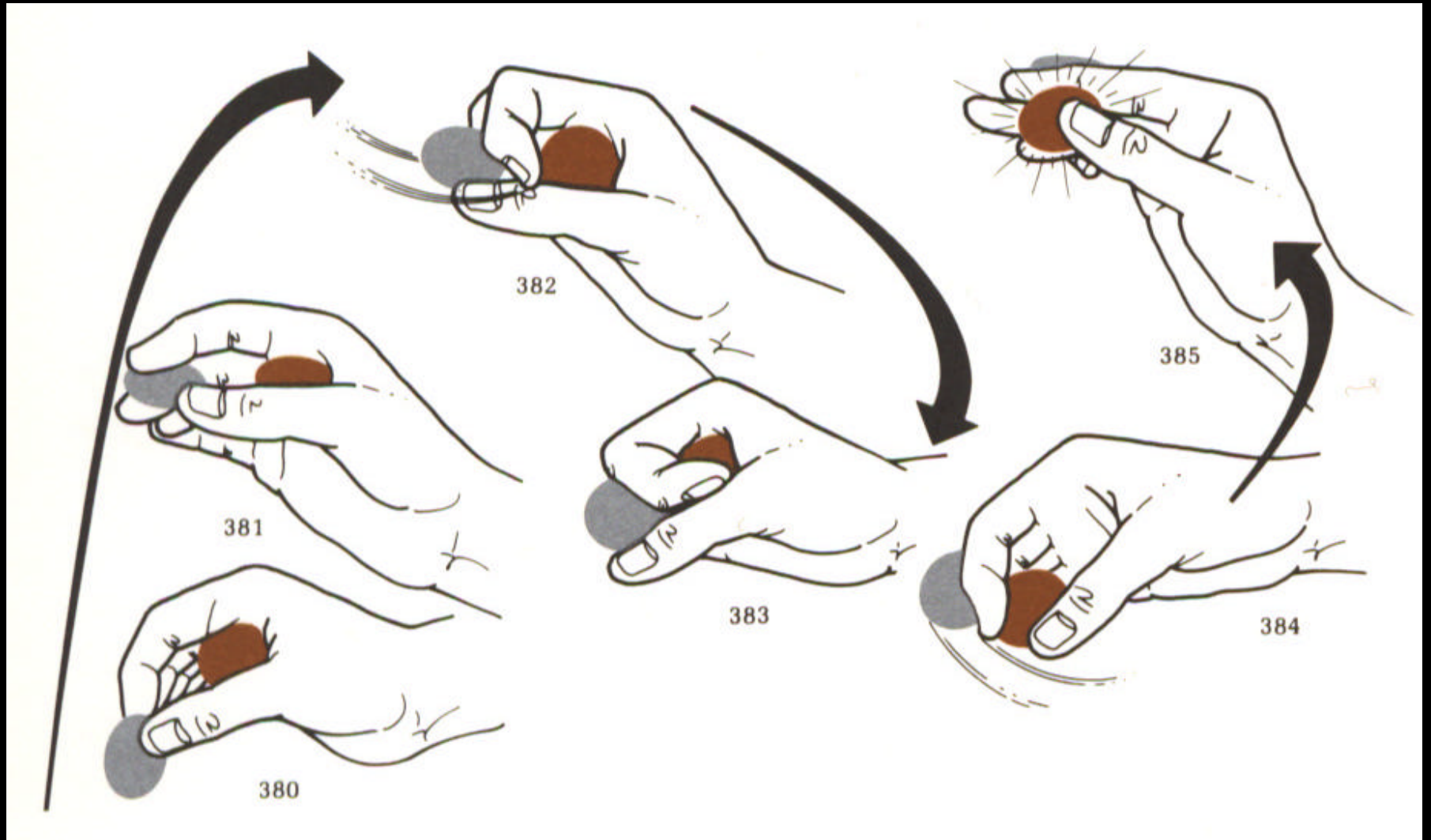
Multiple Snapshots

- Ingres,
Female Nude,
1826-1834



Limitations: static

Multiple Snapshots

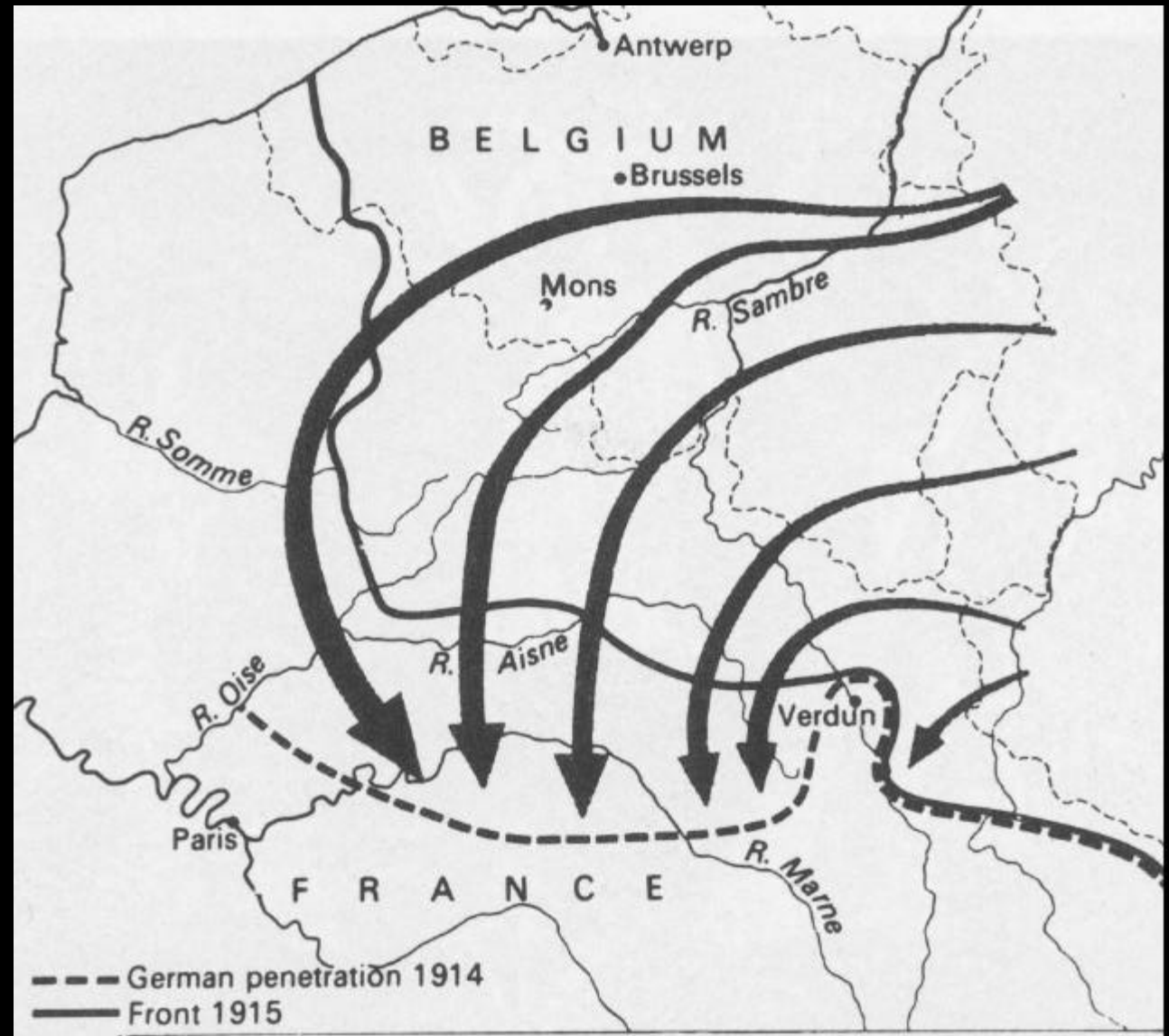


Limitations: static

The picture is static

- Single snapshot
 - Content
 - Time & Pose (not at rest)
 - Viewpoint
 - Blur, Action lines, path
- Multiple snapshot
- Metaphor
- Pictorial
- Op' Art

Metaphor



Limitations: static

Metaphor

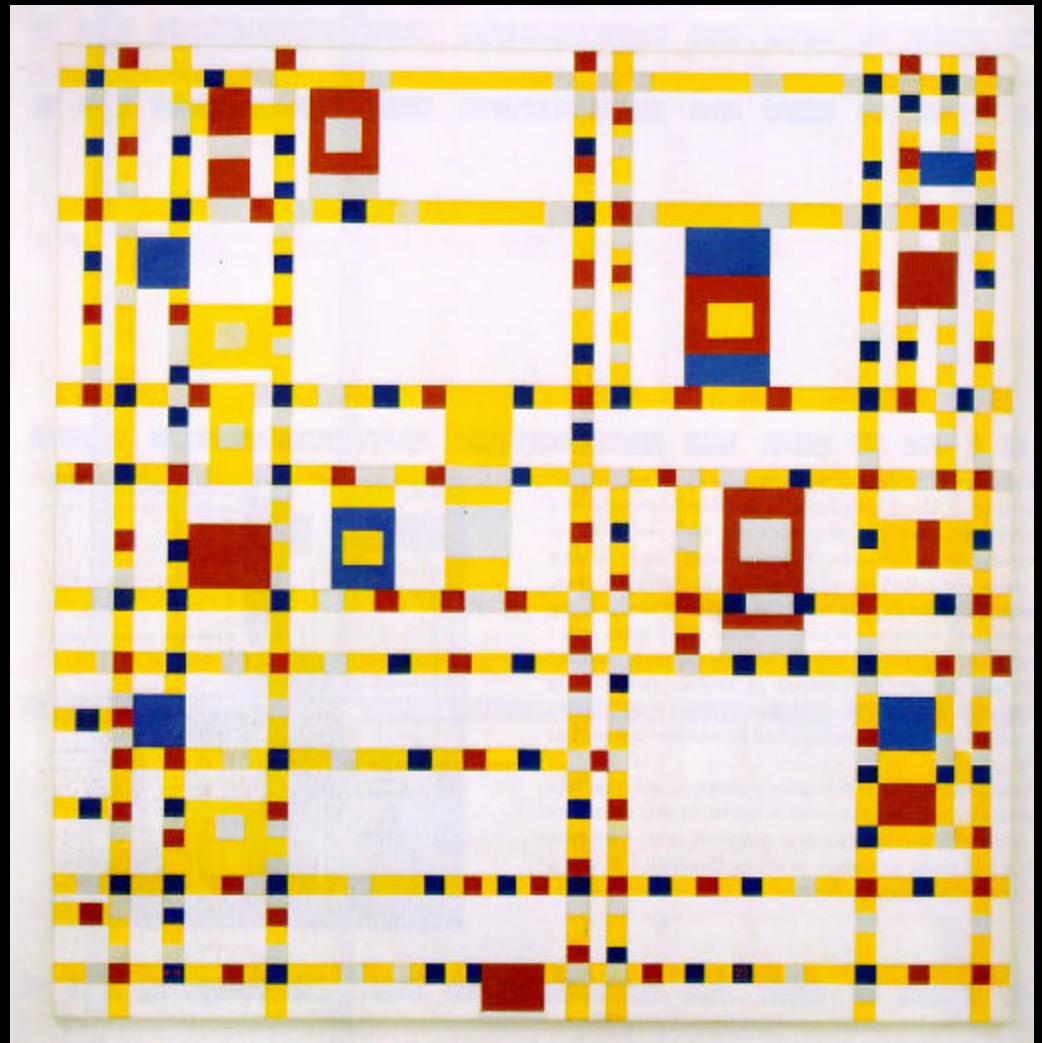
- *Racing Automobiles, Balla*



Limitations: static

Metaphor

- Mondrian
*Broadway
Boogie-Woogie,*
1942-43



Metaphor

- Morris Louis, *Saraband*, 1959



Metaphor – dynamic form

- Weston, *Artichoke Halved*, 1930



Limitations: static

Metaphor – dynamic form

- Sidney Opera



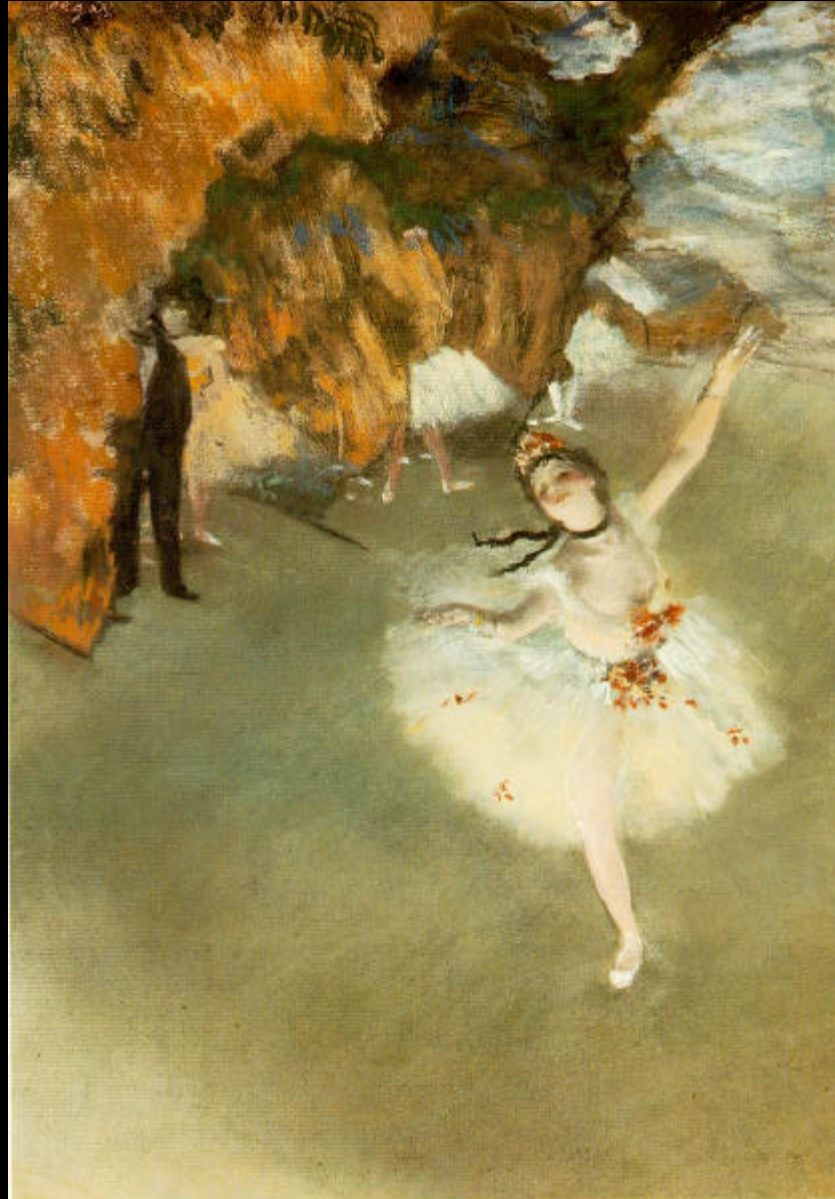
Limitations: static

The picture is static

- Single snapshot
 - Content
 - Time & Pose (not at rest)
 - Viewpoint
 - Blur, Action lines, path
- Multiple snapshot
- Metaphor
- Pictorial
- Op' Art

Composition - balance

- Degas, *L'Etoile*
- Off-center, tension



Limitations: static

Composition - lines

- + Balance



Limitations: static

Composition - gaze

- Turner



Limitations: static

Composition - lines

- Van Gogh, *Starry Night*, 1889



Limitations: static

Composition - lines

- Barbieri,
Sybil Holding a Scroll,
1590-1666



Limitations: static

Composition - lines

- Tak Kwong Chan
The Horse –
Away He Goes 1980



Limitations: static

Composition - grouping

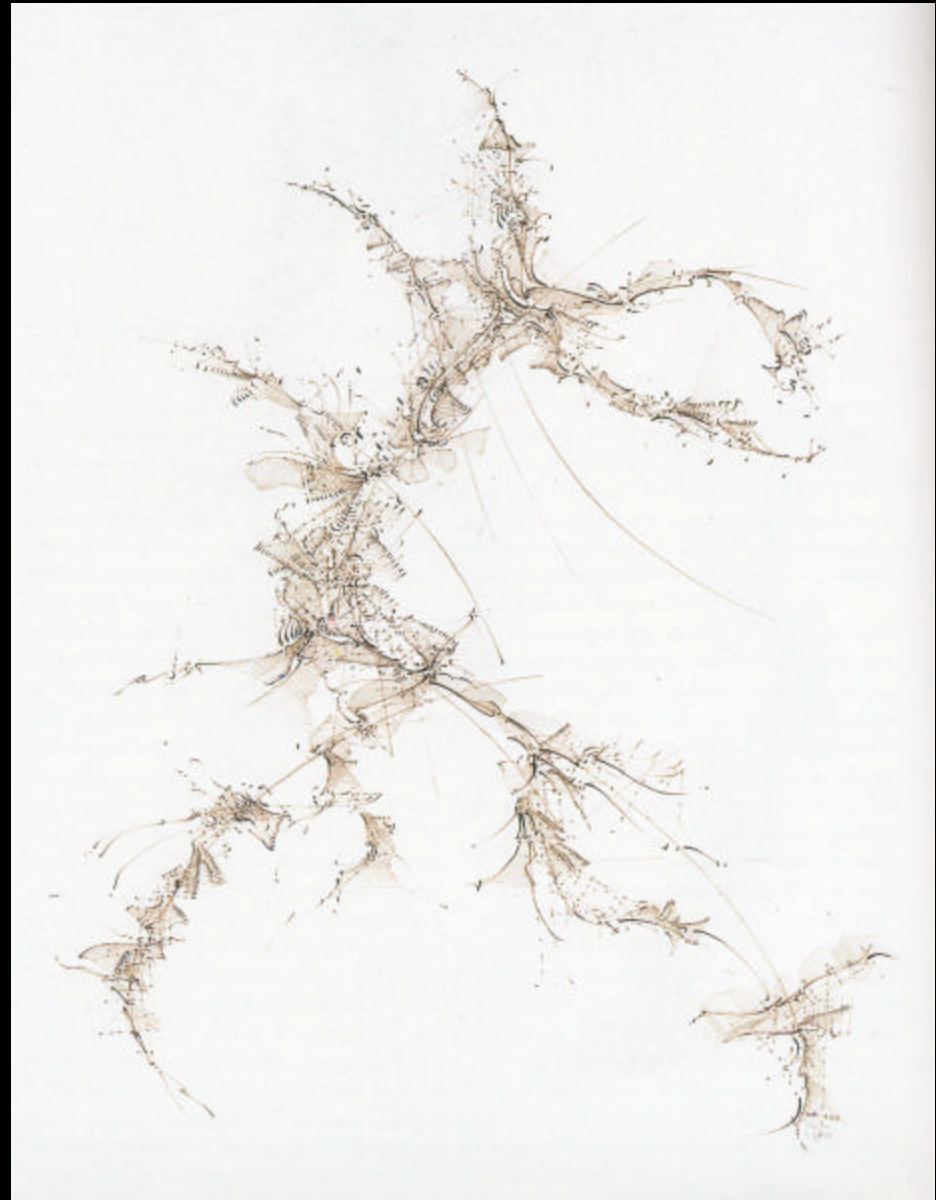
- Arthus Bertrand



Limitations: static

Abstract

- Claude Melin,
Chanson De Geste,
1990



Limitations: static

Calligraphy

- Hassan Massoudy

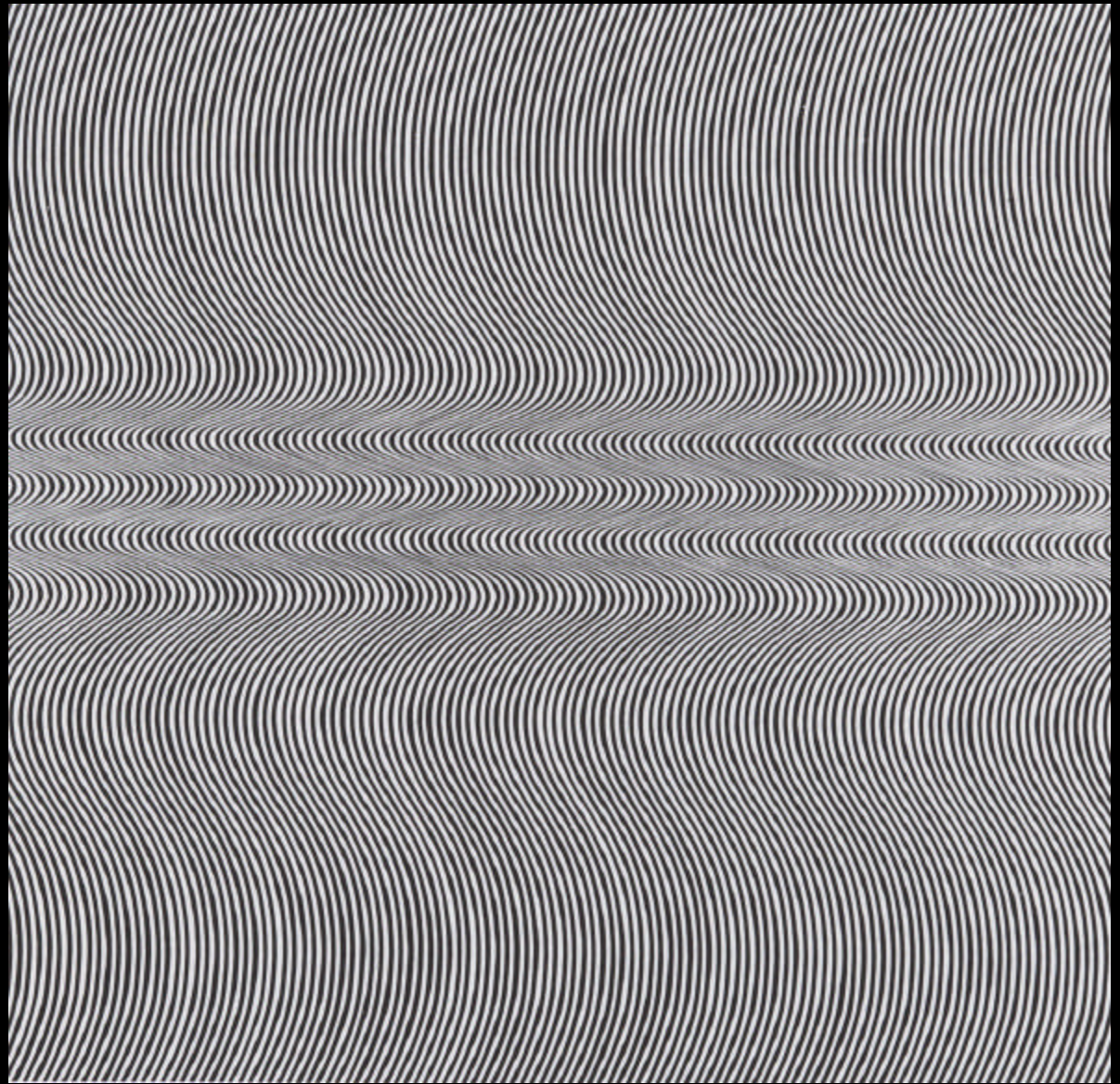


The picture is static

- Single snapshot
 - Content
 - Time & Pose (not at rest)
 - Viewpoint
 - Blur, Action lines, path
- Multiple snapshot
- Metaphor
- Pictorial
- Op' Art

Op' Art

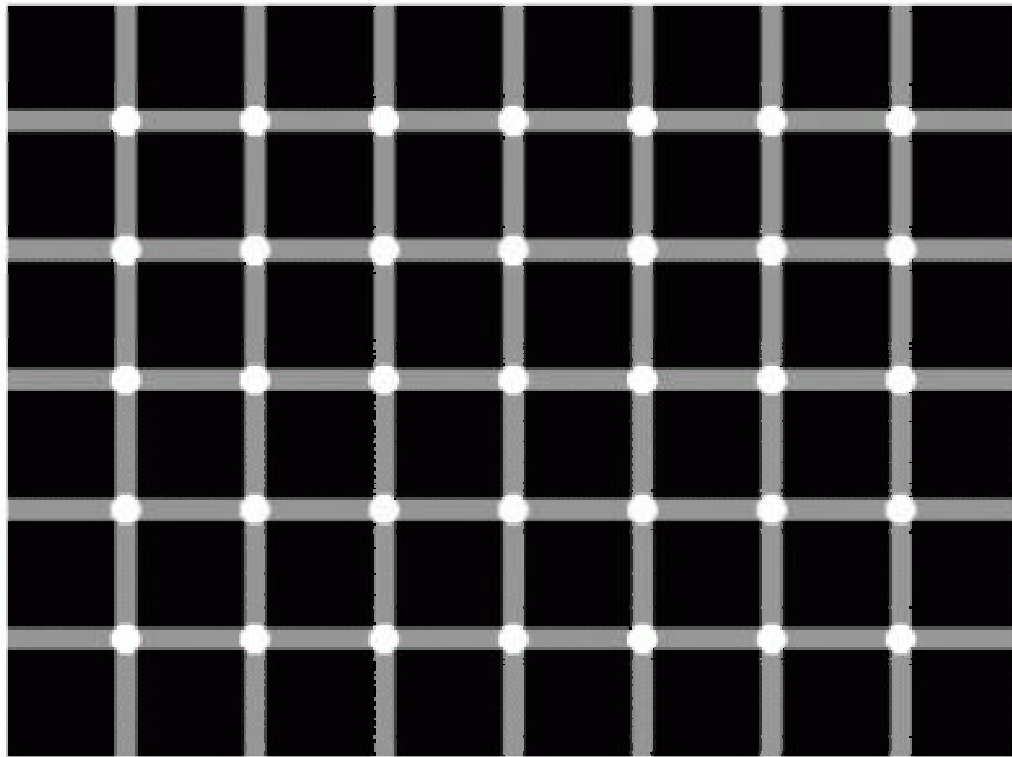
- Bridget Riley,
Current,
1964



Limitations: static

Illusion

Florida Election Recount



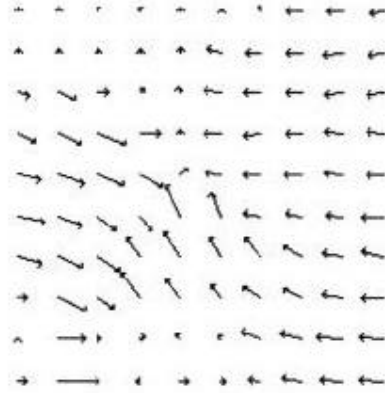
Count and total black dots for Al Gore and white dots for George Bush. Recount to confirm

Motion without Movement

- [Freeman, Adelson and Heeger, 1991]
- Time sequence of images
- No movement but Sensation of motion



(a)



(b)



(c)



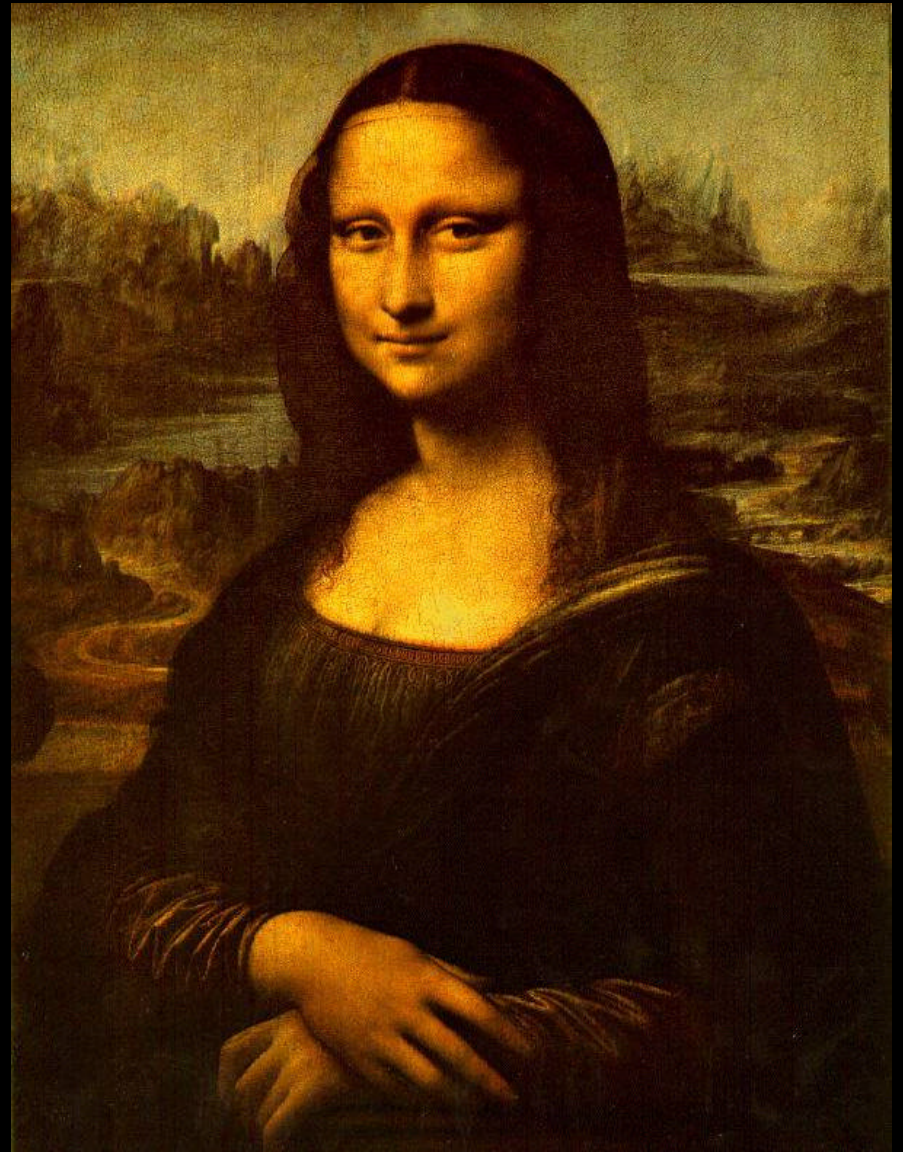
(d)



Limitations: static

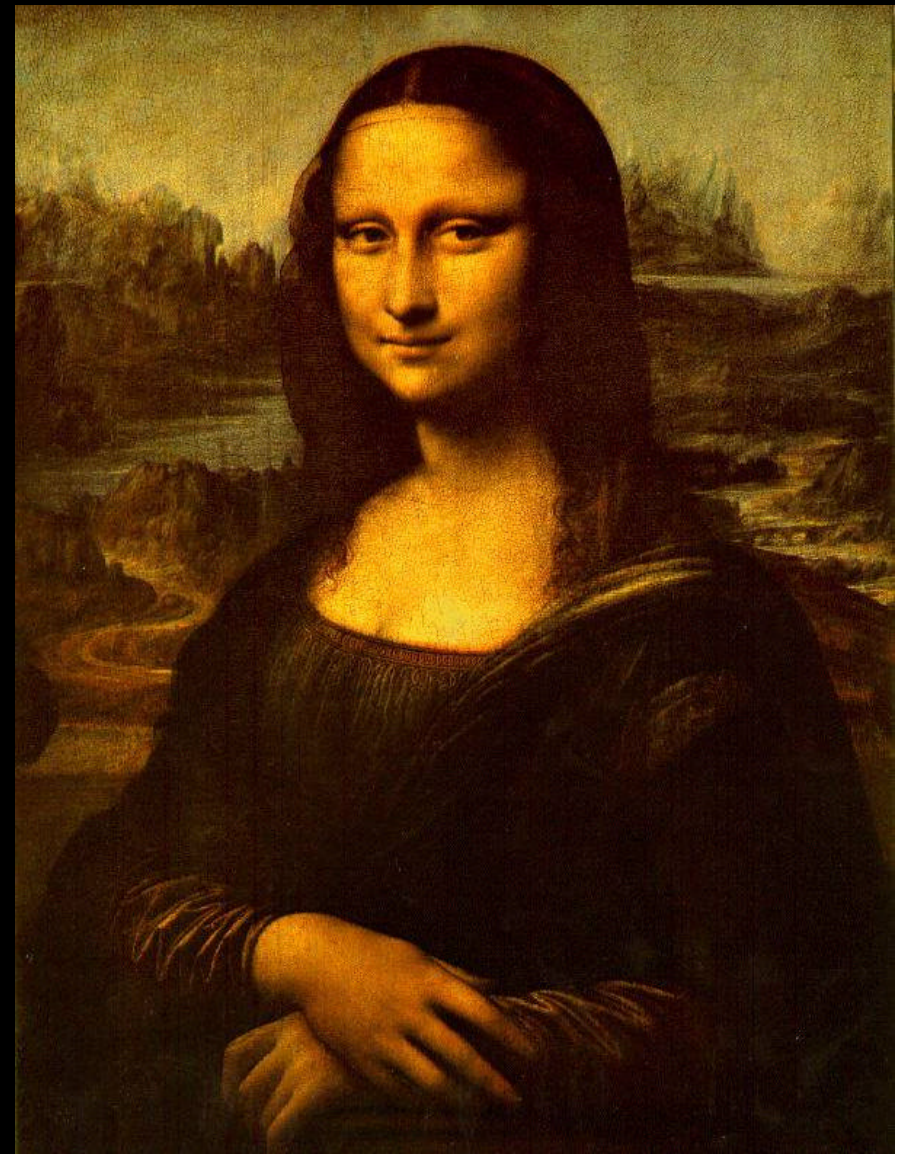
La Gioconda

- Sfumato



La Gioconda

- Sfumato
- [Dr. Livingstone]
- Multiresolution vision



Limitations: static

A Paradigm...



Limitations: static

After Spring Break...

- Representation system
 - Drawing & perspective
 - Denotation
 - Tone & color

The picture is static

TABLE 7.1
Results of a Cross-Cultural Survey of Pictures Showing Movement

Cultural period	Number of pictures viewed to find 25 pictures of movement	Pictorial movement indicators			
		Posture	Content	Necessitating	Metaphor
Ancient cave paintings	70	25	9	—	—
Egyptian tomb paintings	66	24	17	1	—
Greek vase paintings	34	25	19	1	—
Mediaeval (Giotto; Martini)	80	25	15	7	4
Renaissance (da Vinci; Michelangelo)	58	25	18	4	3
Baroque (Rubens; Fragonard)	104	25	13	9	3
Realism (Goya; Delacroix)	89	25	17	4	—
Oriental (Kokusai)	50	25	20	9	—
American (Marin)	63	25	12	17	—
French Fauvism (Matisse; Marquet; Derain)	181	24	21	10	—
German Blaue Reiter (Macke; Kandinsky)	117	25	11	5	—
Contemporary children's books	34	25	18	6	7
Contemporary newspaper comics	41	25	5	5	7

NOTE: The sources for the pictures are in Appendix 2.

The contrast is limited

The gamut (palette) is limited
